

Amendments To The Claims

Claims 1-5 (canceled)

Claim 6 (currently amended): ~~The apparatus of claim 5;~~ An apparatus for use generating illumination, comprising

a reflective base;

a first light source positioned proximate the reflective base; and

a reimaging reflector positioned partially about the first light source, where a percentage of light emitted from the first light source is reflected from the reimaging reflector to the reflective base and adjacent the first light source, and at least some of the percentage of light reflected from the reimaging reflector defines a first real image having dimensions about equal with dimensions of the light source such that the first real image is adjacent the first light source and the reflective base reflects the light of the first real image;

wherein said reflected light from said first real image is directed into substantially a same solid angle as a solid angle of substantially a remaining portion of light emitted from said first light source that does not strike the reimaging reflector thereby achieving etendue squeezing of said first light source;

wherein the reimaging reflector comprises a first sector of a first prolate ellipsoid and a second sector of a second prolate ellipsoid, where the first and second sectors joined along an axis;

wherein a first percentage of the light reflected from the reimaging reflector is reflected from the first sector to the reflective base adjacent the first light source at the first real image of the first light source adjacent the first light source on a first side of the first light source such that the reflective base reflects the light of the first real image;

a second percentage of the light reflected from the reimaging reflector is reflected from the second sector to the reflective base adjacent the first light source establishing a second real image of the first light source adjacent the first light source such that the reflective base reflects the light of the second real image;

wherein the first sector of the reimaging reflector is defined by a first ellipsoid having first and second foci, and the second sector of the reimaging reflector is defined by a second ellipsoid having third and fourth foci;

the first sector is positioned relative to the first light source such that the first focus is positioned on the first light source and the second focus is positioned to the first side of the first light source proximate the first light source at a position of the first real image; and

the second sector is positioned such that the third focus is positioned on the first light source and the fourth focus positioned to the second side of the first light source proximate the first light source at a position of the second real image.

Claim 7 (currently amended): ~~The apparatus of claim 1,~~ An apparatus for use generating illumination, comprising

a reflective base;
a first light source positioned proximate the reflective base; and
a reimaging reflector positioned partially about the first light source, where a percentage of light emitted from the first light source is reflected from the reimaging reflector to the reflective base and adjacent the first light source, and at least some of the percentage of light reflected from the reimaging reflector defines a first real image having dimensions about equal with dimensions of the light source such that the first real image is adjacent the first light source and the reflective base reflects the light of the first real image;

wherein said reflected light from said first real image is directed into substantially a same solid angle as a solid angle of substantially a remaining portion of

light emitted from said first light source that does not strike the reimaging reflector thereby achieving etendue squeezing of said first light source;

wherein the reimaging reflector comprises four sectors distributed along an axis with each of the four sectors defined by four prolate ellipsoids, where a first percentage of light reflected from the reimaging reflector is reflected by a first sector of the reimaging reflector to the reflective base at a first side the first light source establishing the first real image of the first light source, and where a second percentage of light reflected from the reimaging reflector is reflected by a second sector of the reimaging reflector to the reflective base adjacent the first light source on a second side of the first light source establishing a second real image of the first light source adjacent the first light source such that the reflective base reflects the light of the second real image.

Claims 8-49 (canceled).